

**REMARKS**

This amendment, submitted in response to the Office Action dated April 21, 2003, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

The Office Action raises an informality. Page 19, line 10 has been corrected as indicated in the Appendix. Applicant submits that the modification should be entered since it merely adopts a change proposed by the Examiner.

Claims 2, 3, and 5-15 are pending in the application. The Examiner has rejected claim 15 under 35 U.S.C. § 112 for being indefinite. The Examiner maintains the elements of claim 15 are not described in the specification. The Examiner additionally maintains the term "increased" is a relative term which renders the claim indefinite. Applicant submits that one skilled in the art would understand that the claim is supported by the specification and that the recitation of claim 15 is sufficiently definite.

Applicant also submits that verbatim support is not required to support a claim recitation. *In re Wright*, 9 USPQ2d 1649, 1651 (Fed. Cir. 1989). Furthermore, compliance with §112, first paragraph is to be determined relative to one skilled in the art. At page 19, lines 11-18 of the specification, it is described that stray light occurring at position P6 cannot be detected in the low density portion but can be detected at the positions p5', P6' at the transition to the high density portion. Page 20, lines 5-15. Therefore, one skilled in the art would understand that the low density portion is described by an increase in light emissions relative to the high density portion. With regard to the rejection under 35 U.S.C. § 112, second paragraph, Applicant notes that relative terminology is permissible. MPEP 2173.05(b). In the context of the claim recitation of

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high and low density regions, the recitation of claim 15 adequately informs one of skill in the art of the claim scope. Therefore, Applicant respectfully requests withdrawal of the Section 112 rejections.

Claims 9 and 10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Newman et al (USP 5,420,441). Claims 2, 3, 5, 6, 8, and 12-14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Newman in view of Farrokhnia et al (USP 6,231,231). The Examiner objected to claim 7, but has indicated it would be deemed allowable if rewritten in independent form. Claim 7 has not been amended as suggested by the Examiner.

Applicant has added new claims 16 and 17. Applicant submits that the amendment should be entered as it merely includes to the subject matter of prior pending claim 5, for example. The dependency of the remaining claims have been modified accordingly. Claims 16 and 17 describe a boundary line between the low-density and high density regions extending between opposite edges of the storage fluorescent inspection sheet, which is not taught in the prior art cited by the Examiner. Therefore, claims 16 and 17 and their dependent claims should be deemed patentable.

#### **Rejection of claims 9 and 10**

The Examiner maintains Newman discloses a stable fluorescent inspection sheet 106 having stored and recorded a radiation inspection image that has a density pattern in which one or more low-density and high-density regions have a contrast difference of at least 1:20 are arrayed in a horizontal scanning position.

Claim 10 describes low-density and high-density regions having a contrast difference of at least 1:50. The Examiner concedes this is not taught in Newman, but maintains Newman

discloses that it is desirable for the method to provide analysis of the exposure latitude and photometric response linearity over the 10,000:1 dynamic range of a storage phosphor. In addition, a special test target is used to expose a storage phosphor cassette. Therefore, it would have been obvious to provide a special test target having a 1:10,000 contrast difference for exposing the storage phosphor cassette.

The Examiner's rejection appears to acknowledge that only transmission ranges of 1 to 0.03 are discussed in connection with phosphor sheets formed by certain test targets. The Examiner also apparently agrees that this ratio of 30:1 does not meet the contrast of 1:50 as claimed. See Detailed Action, pages 10-11. The Examiner now places heavier reliance on Col. 1 of Newman. However, as discussed previously, these lines pertain to the performance of the reader and not the contrast in the phosphor sheets. The Examiner's own quotation at pages 8-9 of the detailed action support Applicant's position that the dynamic range related to the scanning device or reader. The dynamic range can relate to multiple aspects of the reader quality, such as bit error or quantization error but this does not import any contrast requirements to the storage sheet itself. However, claim 10 describes a sheet recorded with a pattern of certain contrast difference.

For the above reasons, claim 10 should be deemed patentable. Claim 9, having relevant recitations similar to claim 10, is also patentable for the reasons set forth above. Since newly added claims 16 and 17 describe similar features, they are patentable for the same reasons.

**Rejection of claims 2, 3, 5, 6, 8, and 12-14**

The Examiner concedes Newman does not disclose a straight boundary line between said low-density and high-density regions is inclined with respect to the horizontal scanning direction

so that it intersects both edges of the radiation inspection image, as described in claim 2, and cites Farrokhnia to cure this deficiency.

The Examiner cites Farrokhnia column 7, lines 44-58 for describing a straight boundary line between low-density and high-density regions inclined with respect to a horizontal scanning direction. It appears the Examiner is referring to coupon edges 1410 for describing a straight boundary line.

Applicant submits that coupon edge 1410 is not a straight boundary line between a low and a high-density region. The coupon 375, which is formed by coupon edges 1410, is located at a side opposite to, and not between, the high and low-intensity contrast regions of Farrokhnia. See Fig. 14.

Assuming arguendo, coupon edges 1410 were located between a high and a low-intensity region, coupon edges 1410 do not intersect both edges of the radiation inspection image. Upon viewing Fig. 14, it is apparent that coupon edges 1410 do not intersect any edge of subphantom 370.

In addition, there would be no reason to have the coupon edges 1410 intersect both edges of the subphantom. If the coupon edges 1410 were made to intersect both edges of the subphantom, it would appear that the coupon 375 would overlap the resolution patterns 180 which are used to calibrate the system, which would thus effect the phantoms' performance. Therefore, claim 2 should be deemed patentable. Since claim 5 teaches a similar boundary line, it is patentable for the same reasons.

Furthermore, even if Newman and Farrokhnia were properly combined, the combination fails to teach or suggest each feature of claims 2 and 5. These claims both describe intersection

of an inclined boundary line intersects both edges of the inspection image in the vertical direction. The Examiner's own quotation at page 10, line 6 indicates that the edges of the coupon cannot align with a pixel column and thus the rotated section would not extend all the way to the edges since this would cause alignment of a pixel column. Therefore, the Examiner's rationale is improper.

Claims 3 and 6 describe the radiation inspection image including two high-density regions and one low-density region, said regions being arrayed in said horizontal scanning direction in the order of one high-density region, the low density region, and the other high density region. The Examiner again maintains this is taught in Newman without citing where in the reference this is disclosed.

Regardless, Applicant submits that there would be no reason why one of ordinary skill in the art would place the coupon edges of Farrokhnia between the low and high-density regions of Newman. In particular, it is unclear how the coupon edges which provide horizontal and vertical variation would be combined with Newman. If the coupon 375, which is comprised of coupon edges 1410, were placed between the lead masks of Newman (which creates a very precise target design, column 7, lines 2-3), the densities desired in the target of Newman would be altered by the density of coupon 375.

Claim 13 describes a radiation transmittable member partially overlaps a storable fluorescent inspection sheet. The Examiner maintains that Newman discloses clear regions, therefore it would have been obvious to provide a radiation transmittable member that partially overlaps the fluorescent inspection sheet. The test target in Newman completely covers the storage phosphor sheet. In addition, Fast Fourier Transform is used in clear region 4 to measure

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the banding noise power which is then represented in graphical form on a user screen. Column 7, lines 15-18. Therefore, since the clear region is used for a particular purpose, there would be no reason to remove that area from the test target so that a radiation transmittable member partially overlaps a storable fluorescent inspection sheet. The Examiner's reasoning is merely a result of hindsight.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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